Info-Hams Digest   Thu, 25 Feb 93   Volume 93 : Issue 254

Today's Topics:
                   Advice on mobile rig in Ford Ranger?
                       ARRL Bulletin 18 ARLB018
                     e-mail address for president
         FORGET THE CW HELP BRUNO - GET A DICTIONARY INSTEAD!
             Grace DSP-12 vs. AEA DSP-1232 ? Opinions?
                   Ham Radio is good for something!
                   How to login to nic.funet.fi ?
                        Incoming QSL Bureau
                         Islands On The Air
                          MC13135 sources
                 NiCad or NiHydride AA 1.5v batteries
                    packet/BBS addressing question
                         radar scrambler ?
                      Rx converters for six
                     Stock ticker tape on UHF
                          too darn big!
                 W9RG filter info needed!!! (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.
----

markm@bigfoot.sps.mot.com (Mark Monninger) writes:

```
> Greetings all...
>
> I'm seriously considering buying a Ford Ranger and want to install a UHF
> radio in it. I'd be interested to hear from anyone who is using VHF or UHF
> rigs in a Ranger. Power output will be about 25 watts and I'll probably
> use a permanent roof-mounted antenna. I'm mainly interested in advice on
> mounting locations, power & antenna cable routing, noise problems,
> on-board computer problems, etc.
>
> Thanks & 73....
>
> Mark    AA7TA


A friend of mine just bought a new Explorer which in all reality, is
fairly similar. He has no problems with either VHF/UHF other than the
fact that it sets off the factory alarm. A

As for where to mount the rig, just under the dashboard, right below the
am/fm and slightly left. Seemed to work fine with my friends DR-599T.

Tony


----------------------------------------------------------------------
-- Tony Pelliccio, N1MPQ/AA          // Why do some hams run 20mW    //
-- god @ garlic.sbs.com              // into a stub-ducky in a car   //
----------------------------------// and wonder why they can't    //
-- Flame Retardent Sysadmin        // hit a repeater?              //
-=================================================================--
-- A man who feels sees life as a tragedy, a man who thinks sees --
-- life as a comedy.  (As found in a fortune cookie)            --
----------------------------------------------------------------------
--------


-----------------------------

Date: Thu, 25 Feb 93 04:30:00 GMT
From: usc!cs.utexas.edu!uwm.edu!linac!pacific.mps.ohio-state.edu!cis.ohio-
state.edu!mstar!n8emr!bulletin@network.UCSD.EDU
Subject: ARRL Bulletin 18  ARLB018
To: info-hams@ucsd.edu


================================================================
|    Automatic relayed from packet radio via                 |
|           N8EMR's Ham BBS, 614-895-2553                     |
================================================================
```

```
ZCZC AG59
QST de W1AW
ARRL Bulletin 18  ARLB018
>From ARRL Headquarters Newington CT
February 24, 1993
Relayed by KB8NW/OBS & BARF-80 BBS
To all radio amateurs

SB QST ARL ARLB018
ARLB018 Contest update

Date/Time Change for 902, 1296 and 2304 MHz Spring Sprints

Activity in the Spring Sprints has been slumping over the last few
years, especially on the microwave bands.  In the hope of boosting
activity in the 902, 1296 and 2304 MHz Spring Sprints, we have
rescheduled the times and dates.  The three Sprints are scheduled to
run simultaneously on a single Saturday, May 1, 1993.  You may work
any five consecutive hours from 6 AM until 1 PM local time.  The
individual Sprints will remain separate for scoring, but will take
place at the same time.  The other Spring Sprints on 50, 144, 222
and 432 MHz will remain on their respective activity nights.

This change should give members the opportunity to make more
contacts during the Sprints and at the same time promote activity.
It does not discriminate against entrants who have equipment for
only one of the bands.  They can still compete on an equal basis
with their peers.  Members who wish to enter all three Sprints have
the opportunity to pass contacts from one band to another.  Three
simultaneous Sprints, rather than one, should prove to be more of an
incentive for people to go mountaintopping or to rare grid squares.
We want to make the Sprints more fun by creating more activity on
the microwave bands during the contest.
NNNN

------------------------------

Date: 25 Feb 93 06:06:02 GMT
From: news-mail-gateway@ucsd.edu
Subject: e-mail address for president
To: info-hams@ucsd.edu

> Date: 22 Feb 1993 17:48:23 GMT
> Subject: e-mail address for president
> To: info-hams@ucsd.edu
>
> when I was listening radio news line on last sunday.  It
```

```
> mentioned the address   for the white house on compuserve....
> Does anyone catch it?  If you did so, please e-mail the adress
> to me.
>
> thnx
> tatsuya
```

Sorry... couldn't extract your e-mail address out of the header...

President Clinton's e-mail address on America Online is:

clintonpz@aol.com

The original message I saw was as follows:
===============
Turns out that you can now send email to the White House (yes, the one in
Washington D.C.). The address is:
        75300.3115@compuserve.com
```
>
> also clintonpz@aol.com
>
```
Mail sent there is routed by the staff to wherever it's most appropriate
(hopefully not the waste bin), so if you want a reply, you have to include
your U.S. Mail address. Presumably, most of the people who handle the mail
don't have access to email.

FYI, correspondence seems to receive the following generic acknowledgement
upon receipt:

Thank you for your recent electronic mail message to the White House. As
soon as practicable it will be sent to the appropriate office for
consideration. You should receive a written reply in due course.
Unfortunately, we are not yet ready to respond substantively to your message
by electronic mail. We appreciate your patience as we implement our new
electronic systems.

As you know, this is the first time in history that the White House has been
connected to the public through electronic mail. We welcome your comments
and suggestions for ways to improve your Public Access E-mail program.

        Regards,
        Jock Gill
        Electronic Publishing
        Public Access E-mail
        The White House
        Washington, D.C.

        75300.3115@Compuserve.com

CLINTON PZ on America Online

PS: If you did not include your U.S. mail return address in your
message and you want a reply, please send your message again and
include that information.

Happy democracy. :-)

===============
73 for now.... c u on the shortwaves
Terry Stader - KA8SCP
America Online Ham Radio Club Host
Internet: tstader@aol.com (files <28K) or
          tstader@attmail.com (files >28K)
KA8SCP@WA1PHY.#EMA.MA.USA.NOAM
ka8scp@ka8scp.ampr.org [44.56.4.82] Mac
ka8scp-1@ka8scp-1.ampr.org [44.56.4.120] DOS Clone
(they're BOTH pc's!)

Date: Thu, 25 Feb 1993 00:43:28 GMT
From: news.Hawaii.Edu!uhunix.uhcc.Hawaii.Edu!shalamsk@ames.arpa
Subject: FORGET THE CW HELP BRUNO - GET A DICTIONARY INSTEAD!
To: info-hams@ucsd.edu

In article <1993Feb22.130359.3031@ccsvax.sfasu.edu> f_speerjr@ccsvax.sfasu.edu
writes:
>In article <C2twAr.AG3@news.Hawaii.Edu>, jherman@Hawaii.Edu () writes:
>>
>> TO BRUNO / AA6AD: FORGET TRYING TO HELP OTHERS LEARN CW; INSTEAD, HELP
>> YOURSELF OUT BY LEARNING TO CORRECTLY SPELL THE FOLLOWING:

...*ZOT*

>>
>> JEFF NH6IL.
>
>May I respectfully note that the FAQ's for newcomers to usenet specifically
>urge persons not to engage in correction of spelling and grammar? The reason
>given is that it tends to incite flame wars that waste bandwidth and polarize
>readers.
>
>I wonder, incidentally, if Bruno may not be a native speaker of English. I'd
>surely hate to be judged by my ability to spell German or Russian.
>
>This is intended to be a friendly, non-flame-provoking, collegial comment.
>

Nice to see that SOMEONE out there in cyberspace is not a pimply-faced
kid looking for an excuse to start a flamewar.

I have met Jeff (NH6IL). He is not an experienced news user.
He is, like many of the newer hams, simply emulating what he has been
seeing from the others who should know better.

So, all the persons who eagerly jumped right into the flamefest,
what the heck is YOUR excuse?

Maybe if USENET access required a degree in maturity, the Signal/Noise
ratio would be higher... sigh...

Aloha de KJ9U/KH6

Date: 25 Feb 1993 08:41:57 GMT
From: usc!howland.reston.ans.net!newsserver.jvnc.net!darwin.sura.net!
mojo.eng.umd.edu!tedwards@network.UCSD.EDU
Subject: Grace DSP-12 vs. AEA DSP-1232 ? Opinions?
To: info-hams@ucsd.edu

In article <N4HY.93Feb18131900@tang.UUCP> n4hy@tang.UUCP (Bob McGwier) writes:
>The filters in the DSP1232 and DSP2232 are much better than
>these. They are linear phase symmetric FIR filters designed by windowing
>with a window that I designed as being right for the job.

You wouldn't happen to know when AEA plans on implementing
the Doppler shift step up/down for the DSP-1232???

It doesn't seem like it would be all that difficult, infact I
am considering making my own using photodiodes taped over the
far left and right LEDs on the tuning graph...

-Thomas Edwards
 N3HAU member W3EAX U. of MD ARA

Date: 25 Feb 93 02:38:57 GMT
From: news-mail-gateway@ucsd.edu
Subject: Ham Radio is good for something!
To: info-hams@ucsd.edu

Thanks in part to you, Brian, I now am training for a job with
a local small business called ComTest Technologies, Inc.!

Yesterday I attended a seminar by Network General Corp., in which
they enumerated the goodies on their network sniffers. (If you
are not familiar with them I would be horrified :-).
Have you seen their Internet sniffer? It has expert rules in
software, decodes and troubleshoots network traffic in REALtime.
I'll be also dealing with Tektronix test equipment (Still have to
study those digital storage scopes and spectrum analyzers.)
The owner of the company is also an active Extra Class ham!
We are already good friends as well as being co-workers.

One of the main reasons I was hired is my interest in TCP/IP and
Internetworking. You provided me with the motivation to
study this subject on my own, waaay back when you "volunteered" me to
take on the role of IP address coordinator for Hawaii and Paciic islands
in the Amateur Packet Radio Net!

So, at last I am getting the chance to get paid for doing what I like best!

Ham Radio opens a lot of doors, doesn't it?

Aloha Nui Loa!
   John KJ9U/KH6   shalamsk@uhunix.uhcc.hawaii.edu

               ...and the adventure begins...

Date: 25 Feb 1993 04:53:46 GMT
From: ucsd.edu!brian@network.UCSD.EDU
Subject: How to login to nic.funet.fi ?
To: info-hams@ucsd.edu

Use a commercial-at sign instead of 'at' and it will probably work.
the form 'user at hostname' is obsolete and most mail systems barely
support it, if at all. Sendmail won't, soon.
     - Brian

Date: 24 Feb 93 23:38:43 GMT
From: dog.ee.lbl.gov!pasteur!agate!spool.mu.edu!olivea!sgigate!odin!
chuck.dallas.sgi.com!adams@network.UCSD.EDU
Subject: Incoming QSL Bureau
To: info-hams@ucsd.edu

excuse the stupid question here, but i've got conflicting information.

DXCC country list shows 5 area qsl buro in Midland TX.

Other sources show Oklahoma City.

who is right? i wanna get all them [sic] fantastic and rare cards waiting for
me..... ;-)

73 es gl es dx de k5fo chuck adams@sgi.com   dit   dit

Date: 25 Feb 93 02:32:12 GMT
From: ogicse!uwm.edu!cs.utexas.edu!hellgate.utah.edu!cc.usu.edu!
slp9m@network.UCSD.EDU
Subject: Islands On The Air
To: info-hams@ucsd.edu

Where can I get more information on IOTA? Specifically, I want to
know how an island makes the list. Is there a set of criteria
like there is for defining a DXCC country? Any pointers and/or
references would be appreciated.

73, -SEP

        Scott E. Parker   WA7VYJ   \   INTERNET: SLP9M@cc.usu.edu
   Center for Atmospheric & Space Sciences   \   Twisted pair: (801) 750-2975
          Utah State University   \   Home: (801) 753-3924
          Logan, UT   84322-4405   \

Date: 25 Feb 93 02:31:14 GMT
From: ogicse!uwm.edu!cs.utexas.edu!hellgate.utah.edu!cc.usu.edu!
slp9m@network.UCSD.EDU
Subject: MC13135 sources
To: info-hams@ucsd.edu

Can anyone recommend a good mail order source for single
quantities or small lots (<= 10) of Motorola's MC13135 FM receiver
chips? Thanks in advance.

73, -SEP

        Scott E. Parker   WA7VYJ   \   INTERNET: SLP9M@cc.usu.edu
   Center for Atmospheric & Space Sciences   \   Twisted pair: (801) 750-2975
          Utah State University   \   Home: (801) 753-3924
          Logan, UT   84322-4405   \

Date: 25 Feb 93 01:09:33 GMT
From: panix!schuster@nyu.arpa
Subject: NiCad or NiHydride AA 1.5v batteries
To: info-hams@ucsd.edu

In article <1993Feb24.085309.5215@cactus.org> cheselka@cactus.org (Michael R. M.
Cheselka) writes:
>Who sells high capacity rechargables in the US?

Radio Shack sells reasonably high capacity nicads that are well rated.
I've put their 850 mAH penlite cells in two scanners and they're doing
quite well. I really don't believe they're 850, but probably are well
in excess of 700.

>Can nickle-hydride
>batteries be recharged in nicad rechargers?

Yes, but they don't get anywhere near full capacity, in my experience using
a wide variety of nicad chargers. Also, NiMH cells have a MUCH higher rate
of self discharge ... i.e. they just go dead sitting there over a few days.

--
Mike Schuster | schuster@panix.com | 70346.1745@CompuServe.COM
------------------- | schuster@shell.portal.com | GEnie: MSCHUSTER

Date: Mon, 22 Feb 93 21:41:23 EST
From: sdd.hp.com!cs.utexas.edu!uwm.edu!linac!att!att!fang!gator!towers!bluemoon!
gerry@network.UCSD.EDU
Subject: packet/BBS addressing question
To: info-hams@ucsd.edu

> How do I get my message(s) from here to there? Do I have to
> determine a repeater path from here to there, or do I just send it
> into the ether (and hope)?
>
You must know the BBS with which your correspondent is registered.
You register with a local BBS. Then you can use SP (Send Personal)
to address messages, as for instance SP KC2DG@WA2AAR.NJ.USA.NA
for me to send a message to my son.   It will usually be much much
slower than e-mail. 73 and GL

gerry@bluemoon My amateur radio callsign is K8EF, and my

packet radio address is K8EF@W8CQK.OH.USA.NA

Date: 24 Feb 93 23:48:00 GMT
From: twwells!pics!james.mollica@RUTGERS.EDU
Subject: radar scrambler ?
To: info-hams@ucsd.edu

Hello all. I am looking for info on those "black boxes" you can build
to scatter police radar or send out garbage in the receiver range so a
speed lock will not happen. I believe I saw some articles in Popular
Electronics or Nuts and Volts in the past. If you know where I can
read up on this subject or find some project info please leave me a
msg. Thanks very much.

                  JIM

 * 1st 1.02b #1439 * 1stReader: The offline mail reader for the rest of us.

+--+
| Pics OnLine MultiUser System   (609)753-2540 HST   609-753-1549 (V32) |
| Massive File Collection - Over 45,000 Files OnLine - 250 Newsgroups |
+--+

Date: 25 Feb 93 02:33:30 GMT
From: ogicse!uwm.edu!cs.utexas.edu!hellgate.utah.edu!cc.usu.edu!
slp9m@network.UCSD.EDU
Subject: Rx converters for six
To: info-hams@ucsd.edu

Can someone point me to a circuit for a good 6m -> 10m receive
converter? The most recent Handbook I have is a 1987. It has the
same receive converter designs that have been in there for years
and years. How good are these? Anyone have experience with these
designs?

Also, has anyone attempted a receive converter by taking the IF
of a Motorola 3362, 3363 or 13135 FM receiver chip out to an HF
receiver? I'd like to hear your comments.

73, -SEP

        Scott E. Parker   WA7VYJ   \   INTERNET: SLP9M@cc.usu.edu
   Center for Atmospheric & Space Sciences   \   Twisted pair: (801) 750-2975

```
        Utah State University           \          Home: (801) 753-3924
        Logan, UT    84322-4405         \
------------------------------------------------------------------------------


------------------------------

Date: Thu, 25 Feb 1993 07:00:29 GMT
From: usc!cs.utexas.edu!torn!mcshub!maccs!pkerr@network.UCSD.EDU
Subject: Stock ticker tape on UHF
To: info-hams@ucsd.edu

Hi, I am DEFINATELY a radio (etc.) newbie so please excuse any ignorance.

 I have heard that stock market quotes are broadcast on UHF and am interested
in setting something up to receive these signals and feed them to my computer.

What I would like to know if this is in fact true? And if so can someone please
point me in the direction of some literature that would allow me to start
investigating the possibilities of doing this.

     Thanks and Cheers, Paul

pkerr@maccs.dcss.mcmaster.ca

------------------------------

Date: Thu, 25 Feb 1993 00:57:36 GMT
From: dog.ee.lbl.gov!pasteur!agate!howland.reston.ans.net!usc!cs.utexas.edu!
csc.ti.com!tilde.csc.ti.com!mksol!mkserv!blair@network.UCSD.EDU
Subject: too darn big!
To: info-hams@ucsd.edu

>>Every day 50 to 100 messages pass thru this group. It's gotten too big to
>>keep up with. How many people would like to see some division? Maybe
>>seperate groups for packet, roll-your-own 'rs, mods, antennas, antiques, etc.
>>Art. KB0DSI

>We've split it twice before. It hasn't helped. The best solution is a
>threaded newsreader, or if you get the group by mail, a smart mail
>agent can do the same thing for you.


How do you mean "it hasn't helped". Are the other boards active? If so,
it did help or the newsgroup would be even worse.
Art.

------------------------------
```

Date: 25 Feb 1993 08:35:23 GMT
From: usc!howland.reston.ans.net!newsserver.jvnc.net!darwin.sura.net!
mojo.eng.umd.edu!tedwards@network.UCSD.EDU
Subject: W9RG filter info needed!!!
To: info-hams@ucsd.edu

Hello! I'm a member of a university amateur radio club which is
interested in obtaining the W9RG DSP filter.

In order to purchase this device, we need to get the tax id
number of the company which produces it (for our brain-dead
purchasing dept.). Due to budgetary problems, we need to get
this thing ordered fast!

Does anyone know the telephone number for the company which
produces the W9RG DSP filter???

73

Thomas Edwards

N3HAU member W3EAX U.M. ARA

Date: Thu, 25 Feb 1993 11:14:54 GMT
From: usc!howland.reston.ans.net!paladin.american.edu!news.univie.ac.@!
scsing.switch.ch!dxcern!frode@network.UCSD.EDU
Subject: W9RG filter info needed!!!
To: info-hams@ucsd.edu

In <1mi0cbINNc5i@mojo.eng.umd.edu> tedwards@eng.umd.edu (Thomas Grant Edwards)
writes:

>Hello! I'm a member of a university amateur radio club which is
>interested in obtaining the W9RG DSP filter.

>In order to purchase this device, we need to get the tax id
>number of the company which produces it (for our brain-dead
>purchasing dept.). Due to budgetary problems, we need to get
>this thing ordered fast!

>Does anyone know the telephone number for the company which
>produces the W9RG DSP filter???

>73

>Thomas Edwards

Below you will find a copy of W9GR's info flyer on the new Multi-Program
kit using the TMS320P15 chip. If you need special information about
his DSP boards you can e-mail him at:

      dlh@gvgdsd.gvg.tek.com (David L. Hershberger)

73 de Frode, F/LA2RL

****
*   Frode Weierud   Phone   :   41 22 7674794   *
*   CERN, SL   Fax :   41 22 7823676   *
*   CH-1211 Geneva   23 E-mail   :   frode@dxcern.cern.ch
     *
*   Switzerland   or   weierud@cernvm.cern.ch
     *
****

===========If you cut here, you'll probably break your CRT!============

          Introducing the W9GR DSP Multi-Program Chip!

The 10 firmware functions for the multi-program chip are:

1. Noise Filter (QRN reducer) & Automatic Notch Filter (switch
selected)
2. Simultaneous Noise Filter (QRN reducer) & Automatic Notch
Filter *
3. Optimized Noise Filter (QRN reducer) *
4. Optimized Automatic Notch Filter *
5. 400 Hz Linear Phase CW Filter (200 Hz BW)
6. 600 Hz Linear Phase CW Filter (200 Hz BW)
7. 750 Hz Linear Phase CW Filter (200 Hz BW)
8. 1000 Hz Linear Phase CW Filter (200 Hz BW)
9. 750 Hz Linear Phase Ultra-Narrow CW Filter (30 Hz BW)
10. HF packet (1600/1800 Hz) and RTTY (2125/2295 Hz) Filter *
* Not available as firmware for single-function DSP kit

The W9GR digital signal processor as described in September 1992
QST has been enhanced. As originally developed, the DSP kit was
single-function: either it was an automatic notch & noise filter,
or it was a CW filter, depending on which firmware PROMs were
used. If you wanted to change functions, it was necessary to plug
in a different set of PROM chips. Now, a preprogrammed Multi-
Program DSP processor chip has been developed which plugs into
the same hardware, and gives you all 10 of the DSP functions

listed above! (And older kits may be upgraded!)

        If you have already built up the single-function version of
the W9GR digital signal processor, you can easily upgrade it to
the Multi-Program DSP simply by plugging in the Multi-Program
chip in place of U1, and moving a jumper wire (the MC/MP- jumper)
on the PC board.

        When you hit the reset button or power up the unit with the
Multi-Program chip, a single LED segment will light and move
across the display, staying lit for about one second at each
segment. Each of the 10 segments corresponds to a particular LMS
filter, CW filter, etc. If you toggle the BIO switch when a
particular LED is lit up, then the corresponding program will
begin. If you don't do anything, then after one pass across the
bargraph (about 10 seconds) the "default" program will execute
(#1, the LMS noise filter & automatic notch filter).

        The digital signal processor hardware is general purpose,
like a personal computer; what it does is determined by a
firmware program loaded into a pair of PROM chips or the Multi-
Program DSP chip. Intended for receive audio functions,
interfacing is easy; the unit connects between your rig's audio
output and its loudspeaker.

        Program #1, the "standard" firmware, is a combination noise
reducer and automatic notch filter, using the Widrow-Hoff LMS
adaptive filtering algorithm. The front panel "BIO" or mode
switch selects either the noise reduction ("denoiser") mode or
the automatic notch filter mode. The noise reducer mode is most
effective against hiss and thermal noise but also reduces impulse
noise and static crashes. This mode reduces listener fatigue and
is recommended for long-term monitoring. The automatic notch mode
eliminates multiple carriers very quickly, within a few
milliseconds. Tuner-uppers, CW interference, carriers, and other
forms of undesired audio tones are quickly eliminated. If a
carrier comes on your frequency, all you will hear will be a
subtle "click" as the automatic notch acquires.

        Program #2 is a simultaneous automatic notch and denoiser
filter, which while effective, is somewhat of a compromise
compared with programs #1, #3, and #4. The front panel mode
switch switches the filter in or out.

        Program #3 is an optimized denoiser filter only. The
denoising function is somewhat more effective than the combined
switchable function in program #1. The front panel mode switch
switches the filter in or out.

        Program #4 is an optimized automatic notch filter only.
Again, this automatic notch function is somewhat more effective
than the combined switchable function in program #1. The front
panel mode switch switches the filter in or out.

        Programs #5-9 are CW filters of different center frequencies
and bandwidths. The front panel mode switch switches the filter

in or out.

Program #10 is a HF packet (1600/1800 Hz) or RTTY (2125/2295 Hz) bandpass filter. The front panel mode switch selects either the packet tones or the RTTY tones.

Even if you use the multi-program chip, you can still use future bipolar PROM programs, simply by moving the MC/MP- jumper back to the MP- position (single function). Another advantage of the multi-program chip is lower power consumption: by removing the power-hungry bipolar PROMs, the current requirement is reduced from 400 mA to 175 mA at normal audio levels.

The CW, HF packet, and RTTY filter firmware programs allow the DSP to be used as a linear phase bandpass filter. Linear phase filtering, which is a significant advantage of DSP, allows filter bandwidth to be narrower than conventional filtering for a given maximum CW speed or data rate.

The parts kit is available with either the multi-program chip or as the economical single function digital signal processor as described in QST.

The parts kit includes a finished double sided printed circuit board with silk screen and solder mask, all PC board and front panel components, IC sockets, and one set of firmware. A cabinet, DC power supply, and connectors are not included. We recommend that builders of this kit should be able to solder, identify components, and construct a PC board from a schematic and parts list.

          O R D E R   F O R M

Name: _____ Ham Call:_____

Address: _____
City, State,
Zip: _____

Item   Price   Quantity   Total

DSP Kit with Multi-Program Chip $125.00   _____   _____
(Includes PC board, all PC and front panel mounted parts, but no enclosure,
power supply, or connectors.)

Multi-Program Chip alone
(to upgrade older units) $45.00   _____   _____

DSP Kit (single function) $90.00   _____   _____
(Includes PC board, all PC and front panel mounted parts, but no
enclosure, power supply, or connectors.)

```
Specify firmware (only one):
[     ]   Noise filter & Autonotcher  (default)
[     ]   400 Hz CW filter (200 Hz BW)
[     ]   600 Hz CW filter (200 Hz BW)
[     ]   750 Hz CW filter (200 Hz BW)
[     ]   750 Hz ultra-narrow CW filter (30 Hz BW)
[     ]   1000 Hz CW filter (200 Hz BW)

Extra Firmware PROMs (for single function DSP kits):

Noise filter & Autonotcher        $15.00        _____           _____
400 Hz CW filter (200 Hz BW)      $15.00        _____           _____
600 Hz CW filter (200 Hz BW)      $15.00        _____           _____
750 Hz CW filter (200 Hz BW)      $15.00        _____           _____
750 Hz ultra-narrow (30 Hz BW)    $15.00        _____           _____
1000 Hz CW filter (200 Hz BW)     $15.00        _____           _____

Subtotal                                                        _____

California residents add 7.25% tax                              _____

Shipping & Handling                                             _____
($7.00 for each complete kit; Multi-Program and extra firmware chips postpaid
within USA & Canada. Foreign orders: $20.00)

Total enclosed                                                  _____

All prices quoted are for U. S. funds drawn on a U. S. bank and are subject
to change without notice. California residents must add 7.25% sales tax;
foreign orders outside the U. S. or Canada must include $20 for postage. Send
orders to:

                              QUANTICS
                          P. O. Box 2163
                  Nevada City, California  95959-2163

-----------------------------

End of Info-Hams Digest V93 #254
*****************************
```